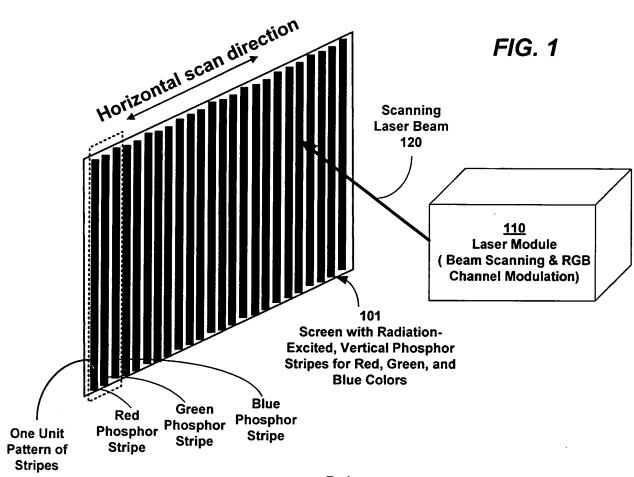
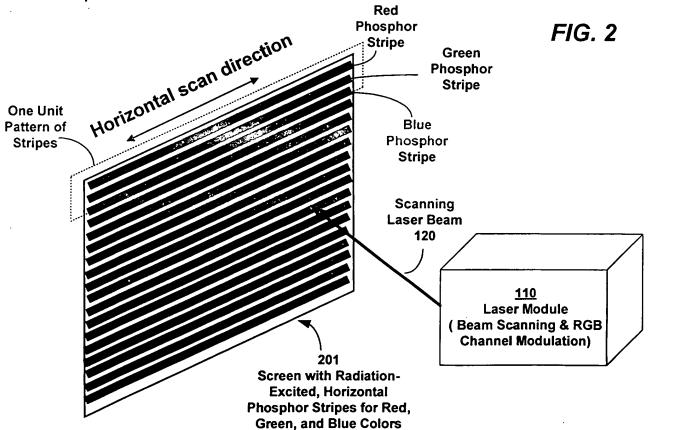
Matter No.: 18994-008US1 Page 1 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL





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FIG. 3A

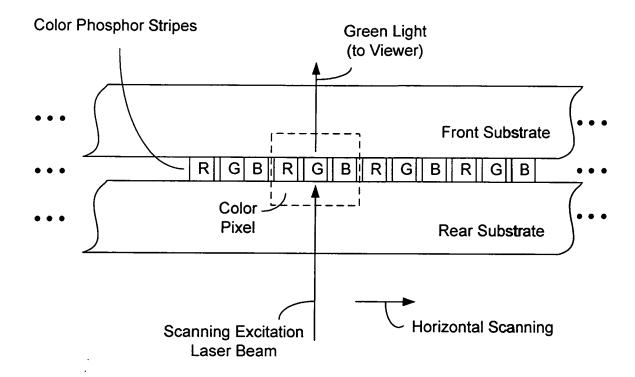
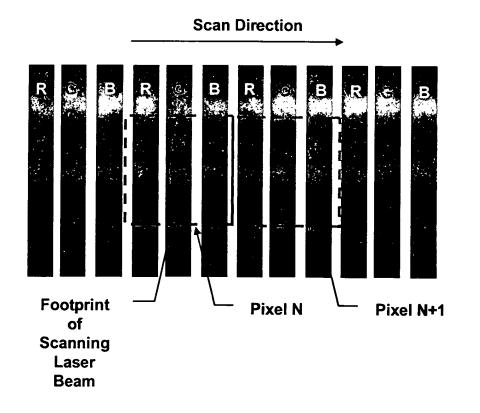


FIG. 3B



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DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 4

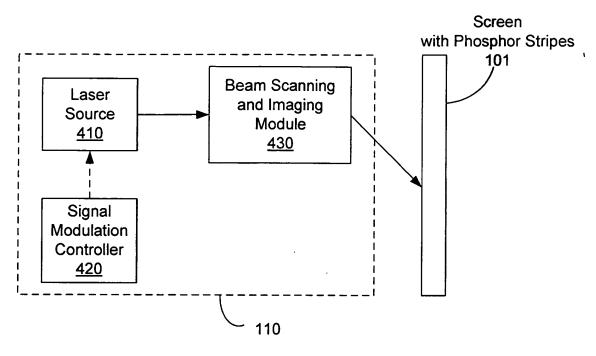
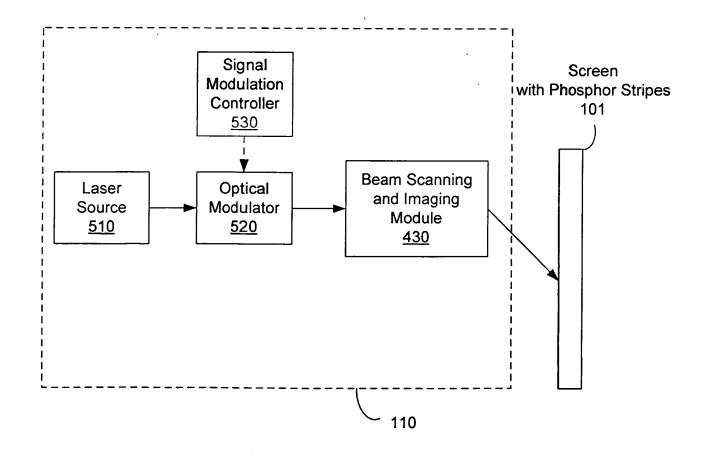


FIG. 5



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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 6

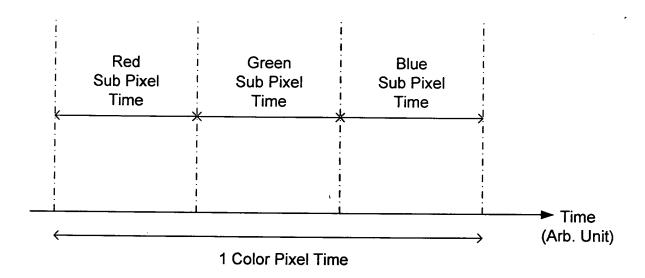
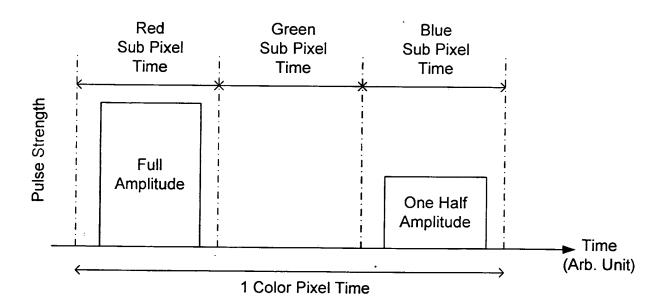


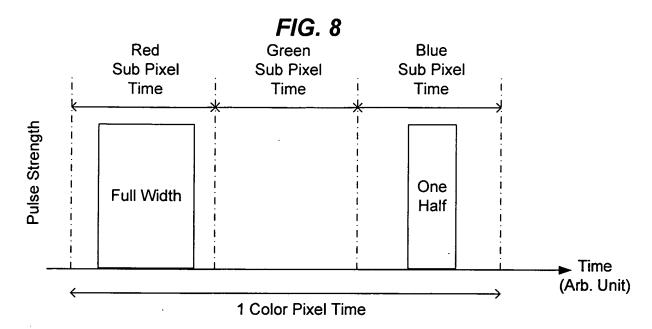
FIG. 7

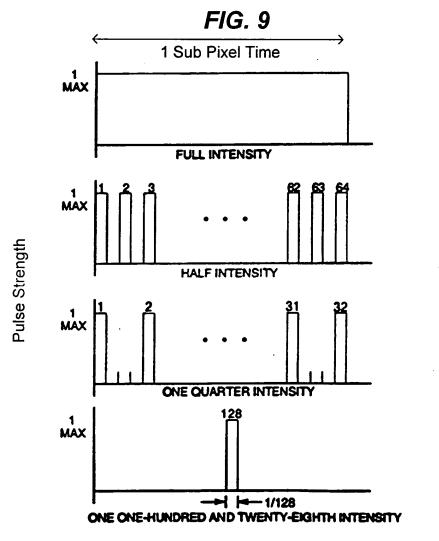


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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL





PULSE WIDTH MODULATION FOR 128 GREY LEVELS

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FIG. 10A

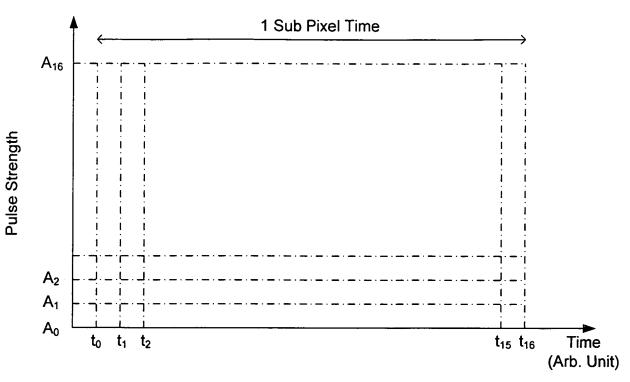
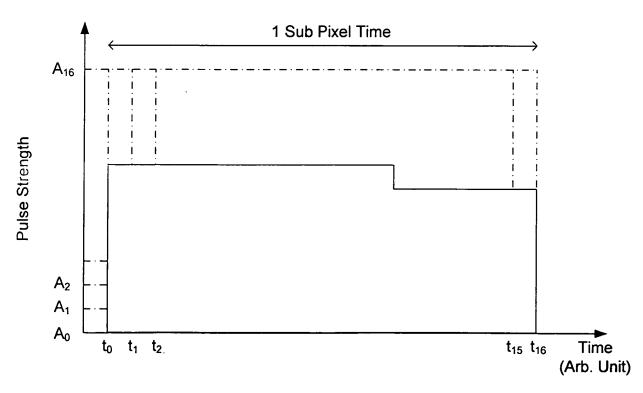


FIG. 10B



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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 11

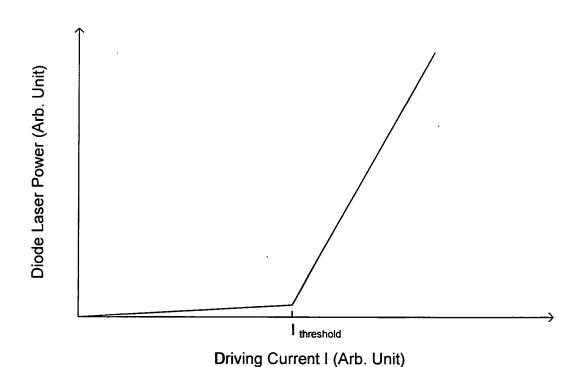
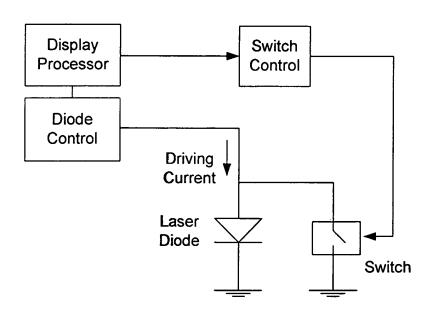


FIG. 12

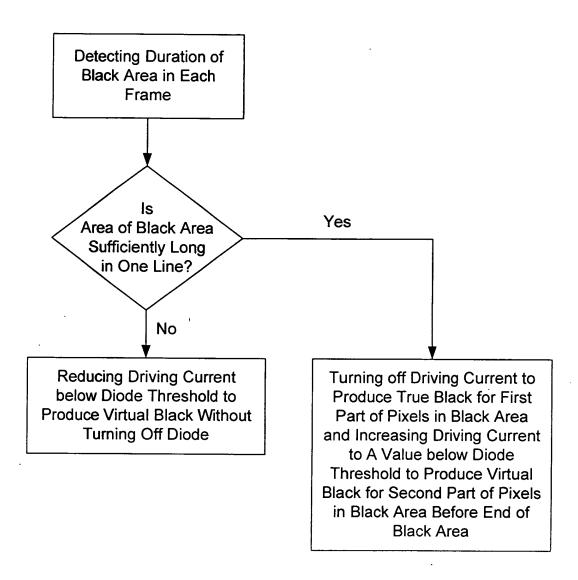


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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 13



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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 14

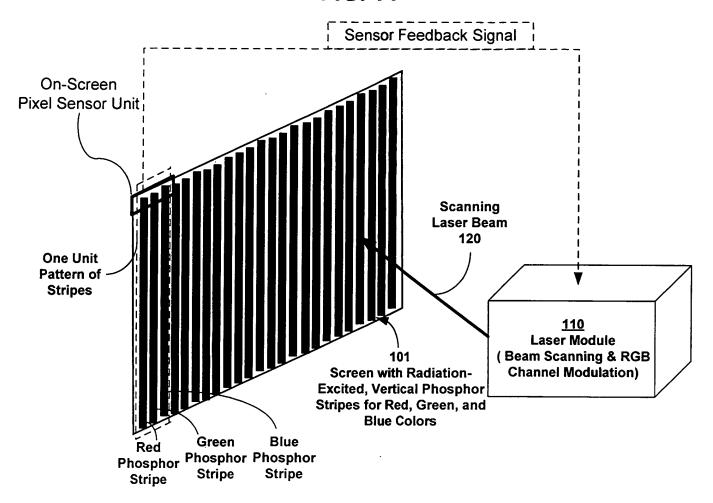
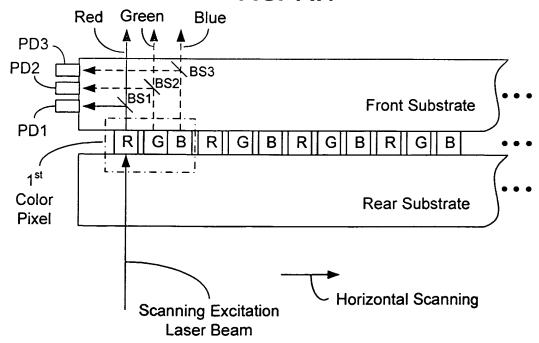
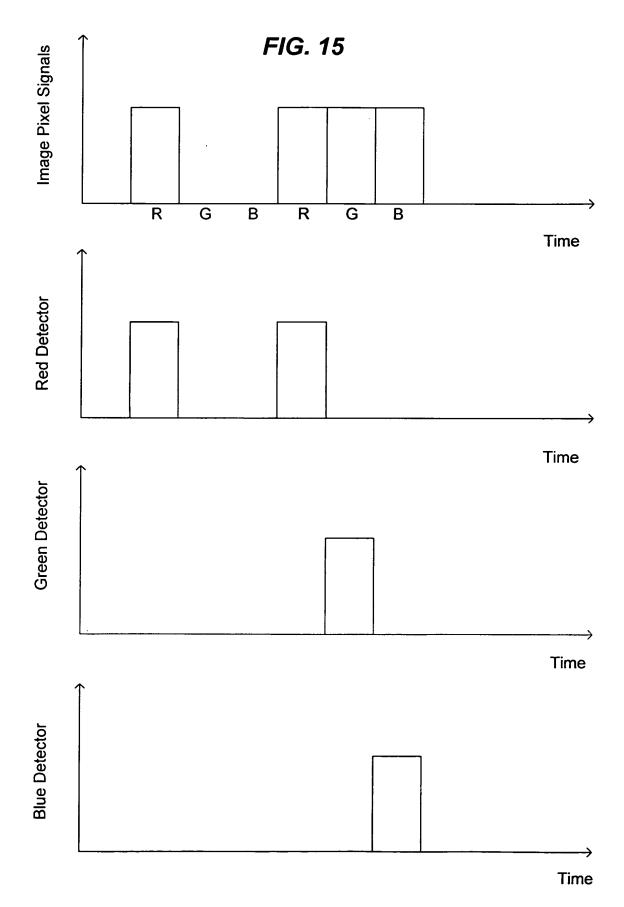


FIG. 14A



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DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS



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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 16

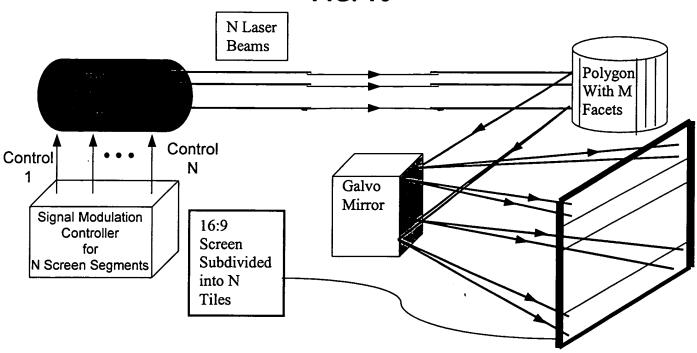
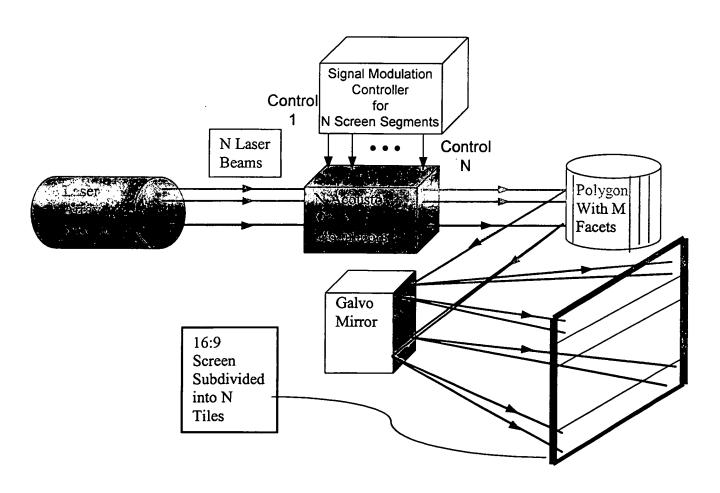


FIG. 17



Matter No.: 18994-008US1 Page 12 of Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar; Patrick Tan; David Kindler; DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS Page 12 of 53

FIG. 18

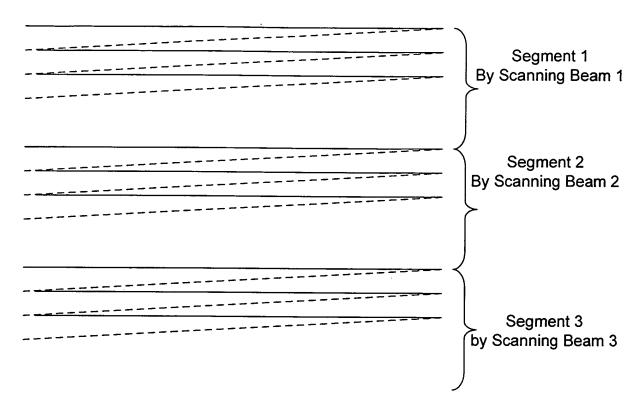
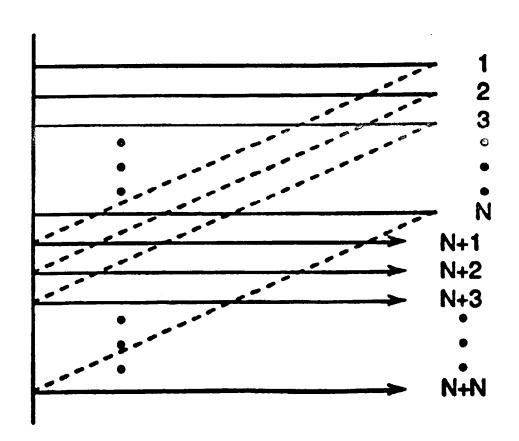
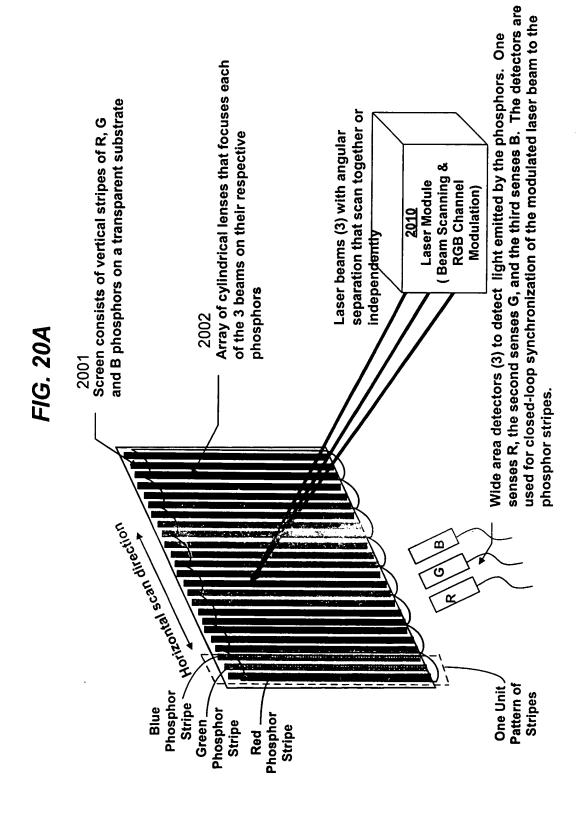


FIG. 19



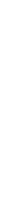
Matter No.: 18994-008US1 Page 13 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar; Patrick Tan; David Kindler; DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS

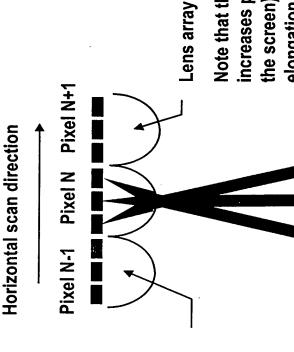


Matter No.: 18994-008US1 Page 14 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS





R, G & B phosphor stripes (end

Each color pixel includes

increases progressively toward the edges of elongation that occurs with increasing Note that the lenses may be tilted (tilt the screen) to compensate for spot

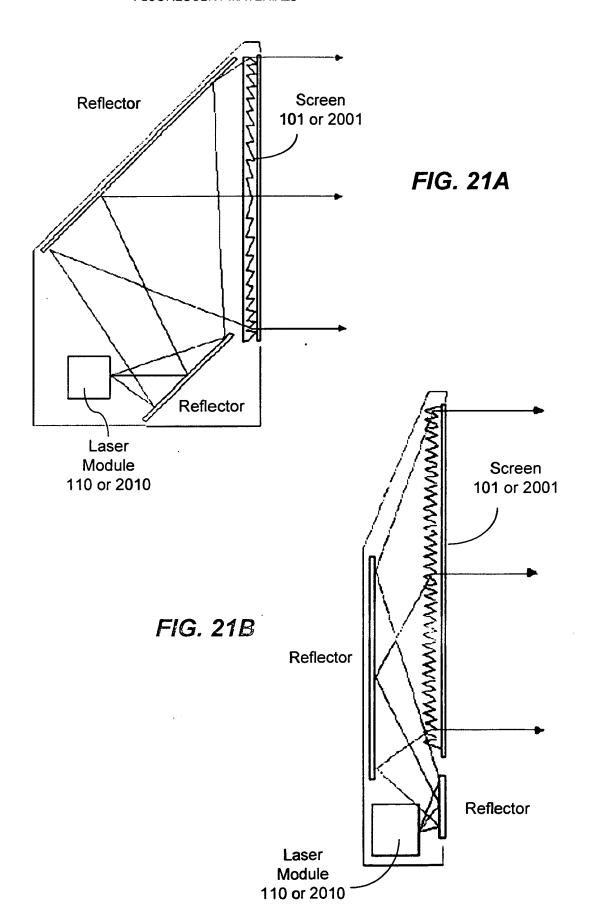
incidence angle Laser beams (3) with angular separation Each beam addresses a specific color that scan together or independently.

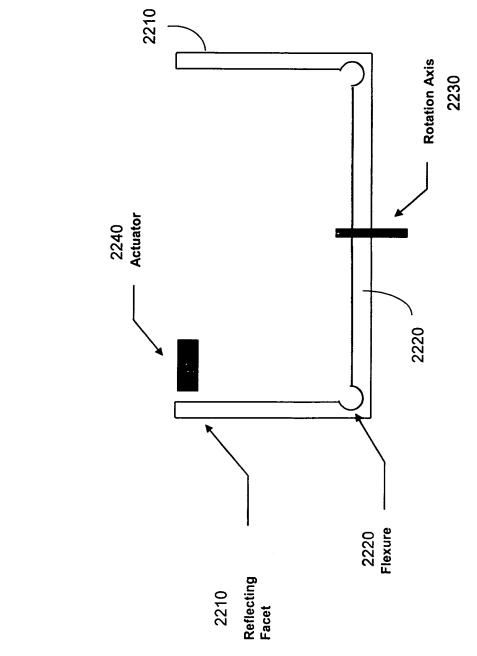
phosphor

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Patrick Tan; David Kindler;

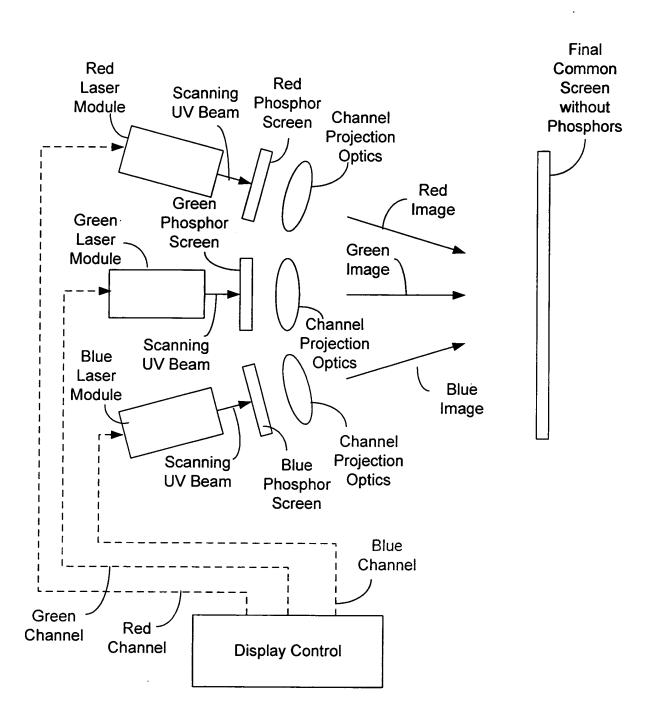
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL





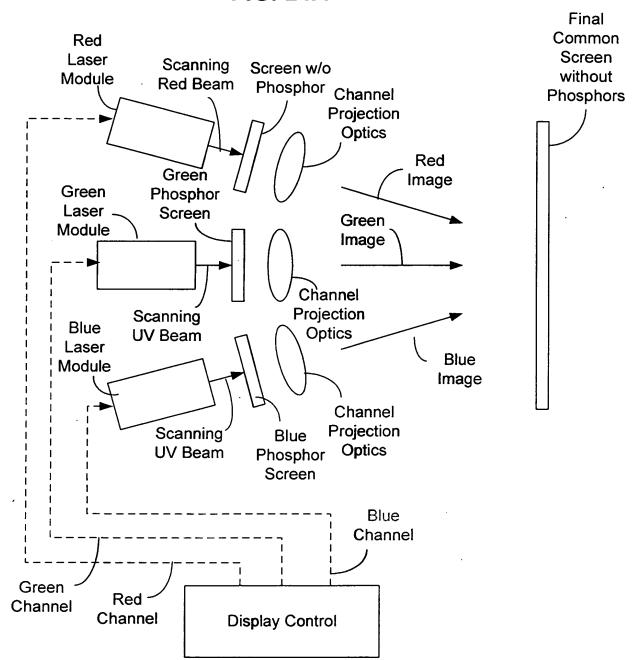
Matter No.: 18994-008US1 Page 17 of 53
Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
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FIG. 23



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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS

FIG. 24A



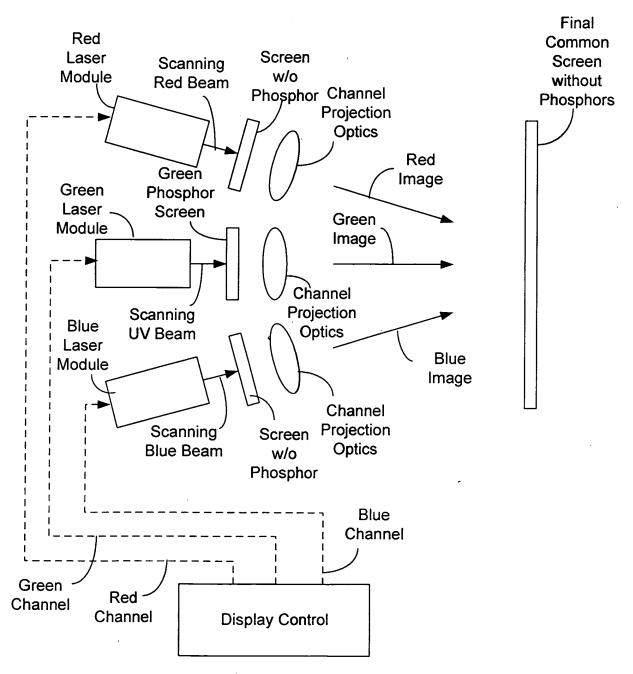
Matter No.: 18994-008US1 Page 19 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

ŧ

Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 24B

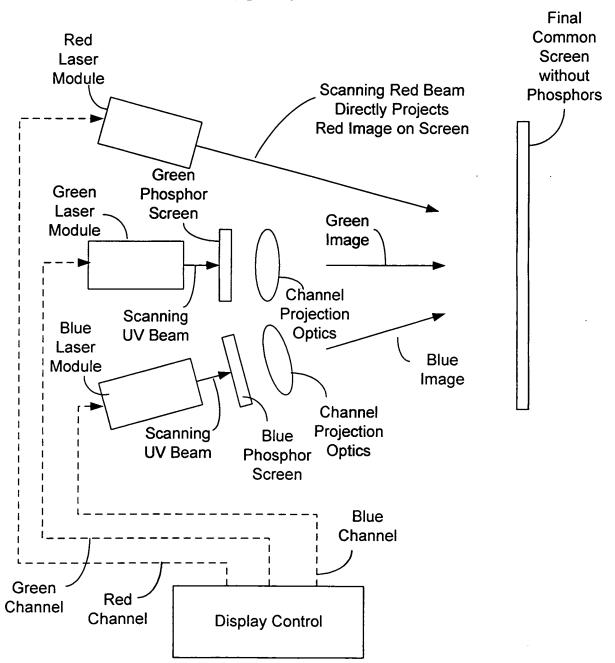


Matter No.: 18994-008US1 Page 20 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 25A

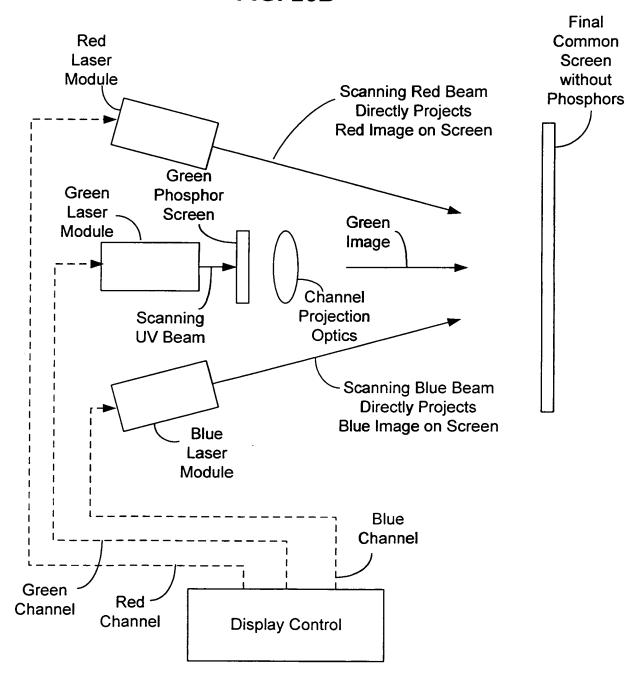


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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

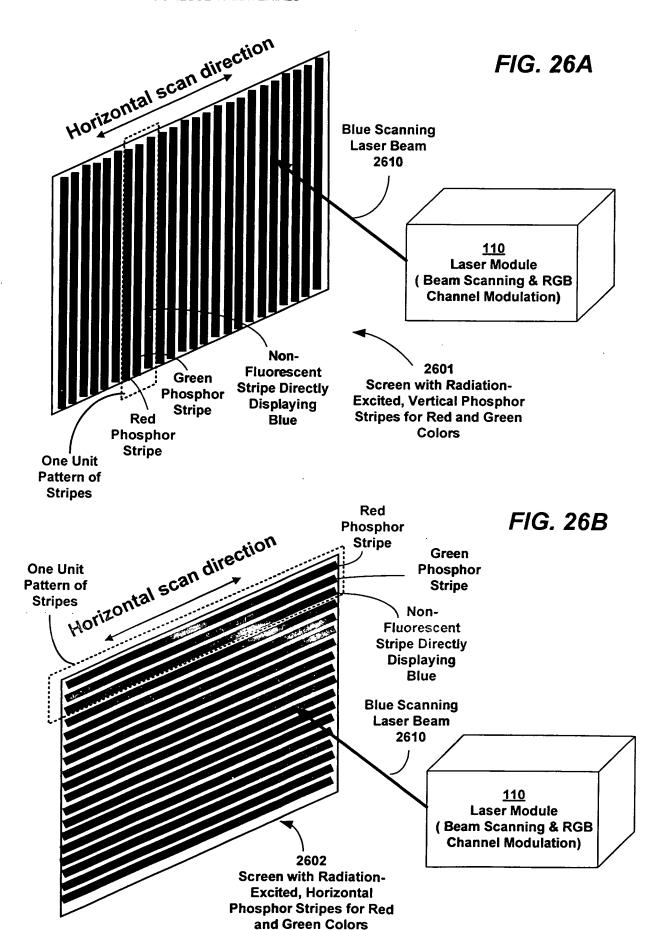
FIG. 25B



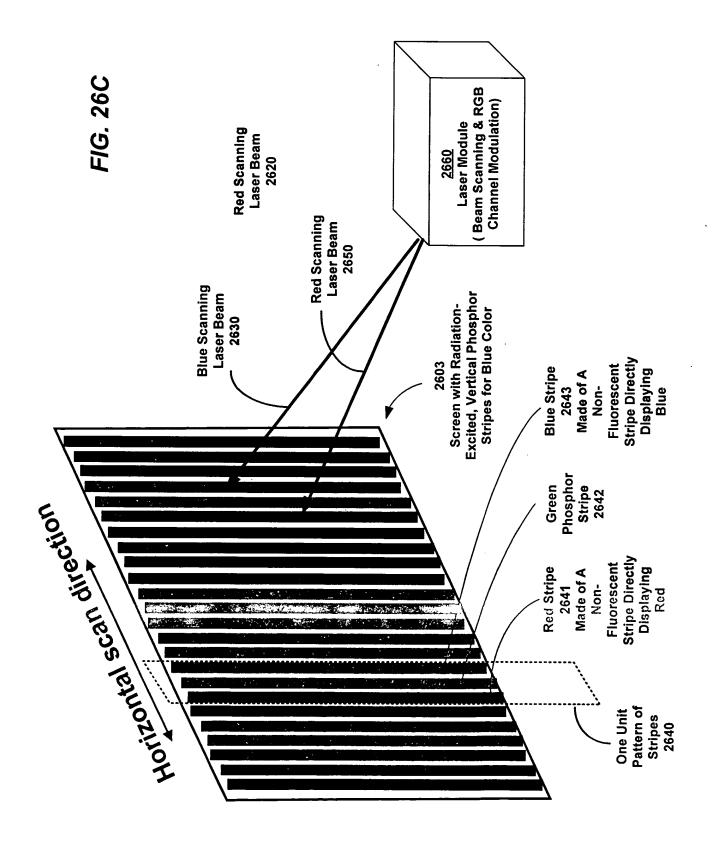
Matter No.: 18994-008US1 Page 22 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan; David Kindler;

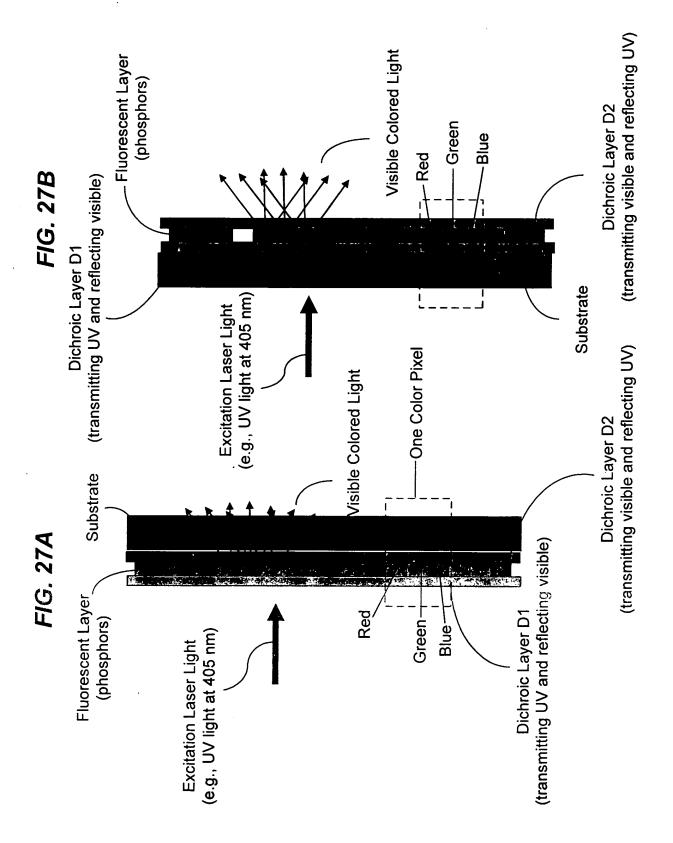
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL



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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar,
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS



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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS



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Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FIG. 27C

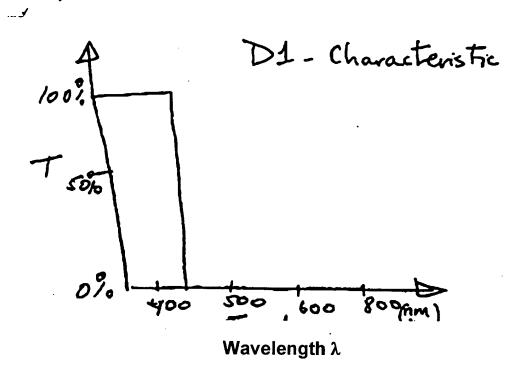
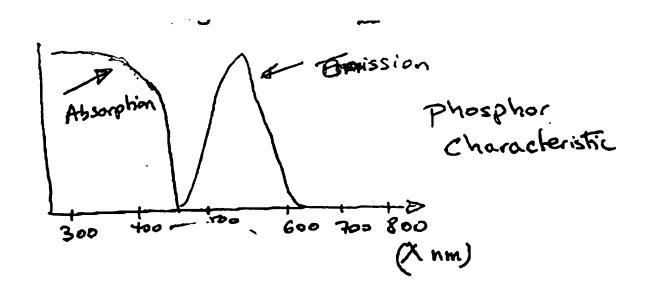


FIG. 27D



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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS

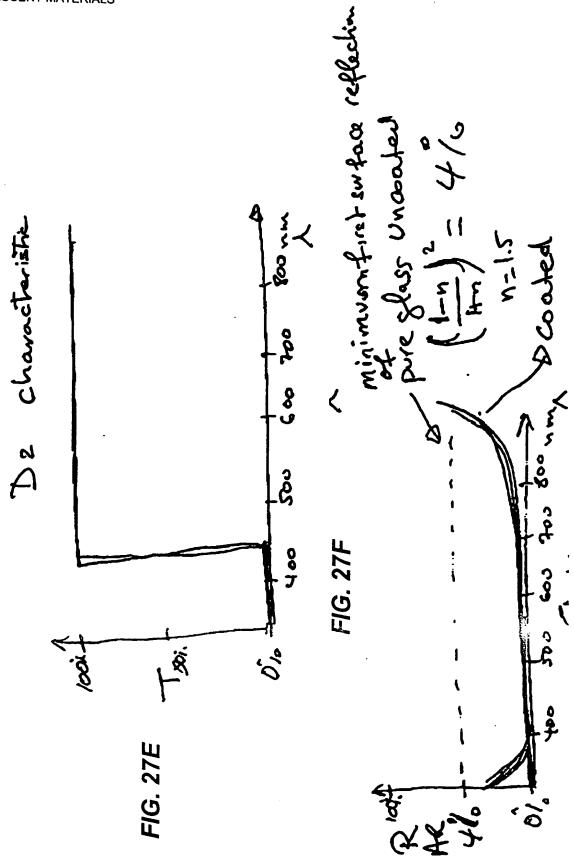
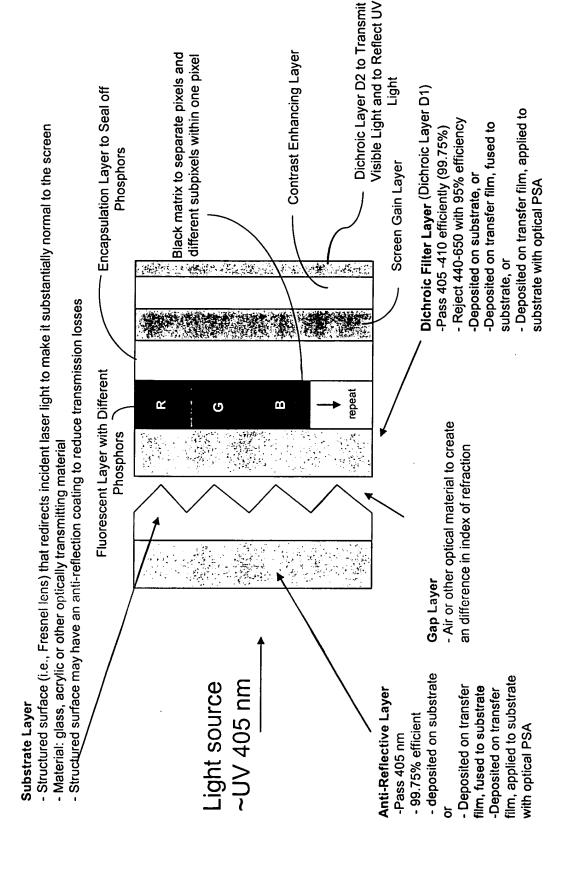
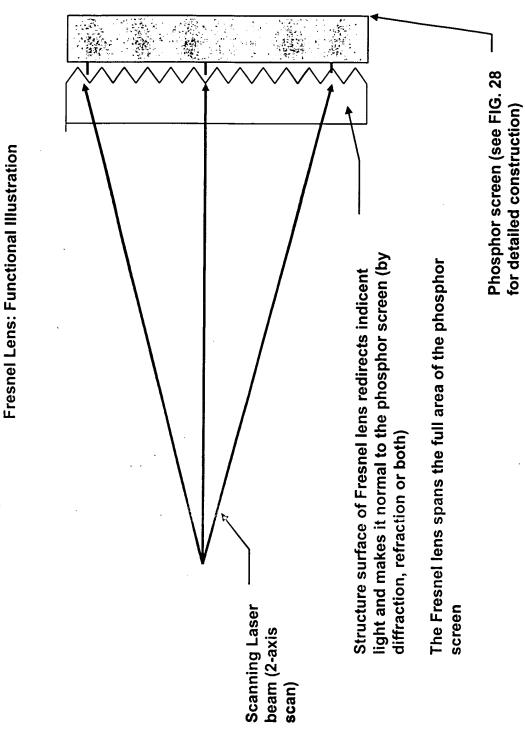
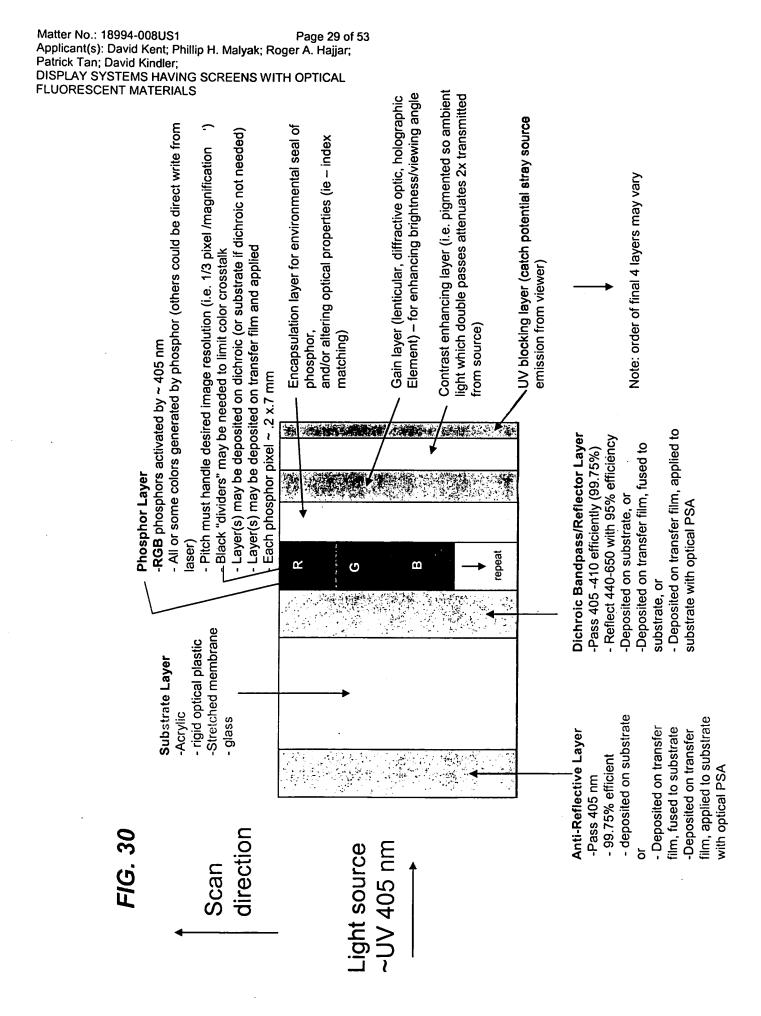


FIG. 28







Matter No.: 18994-008US1 Page 30 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar; Patrick Tan; David Kindler; DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS With Non-Overlapping Phosphor Regions in Different Layers Visible Light and to Reflect UV Dichroic Layer D2 to Transmit Contrast Enhancing Layer Different Phosphors Dividers between Screen Gain Layer Light - Deposited on transfer film, applied to Reject 440-650 with 95% efficiency -Deposited on transfer film, fused to -Pass 405 -410 efficiently (99.75%) **三** Section 1 **第**位是1978年 Deposited on substrate, or Phosphor substrate with optical PSA Region Dichroic Filter Layer $\mathbf{\omega}$ substrate, or Phosphor Region -Stretched membrane Phosph Non-Regio - rigid optical plastic Phosphor Region Non-- glass - deposited on substrate ilm, applied to substrate film, fused to substrate - Deposited on transfer Anti-Reflective Layer -Deposited on transfer - 99.75% efficient with optical PSA -Pass 405 nm

Light source ~UV 405 nm

Multi-Layer Fluorescent Layer

Substrate Layer

-Acrylic

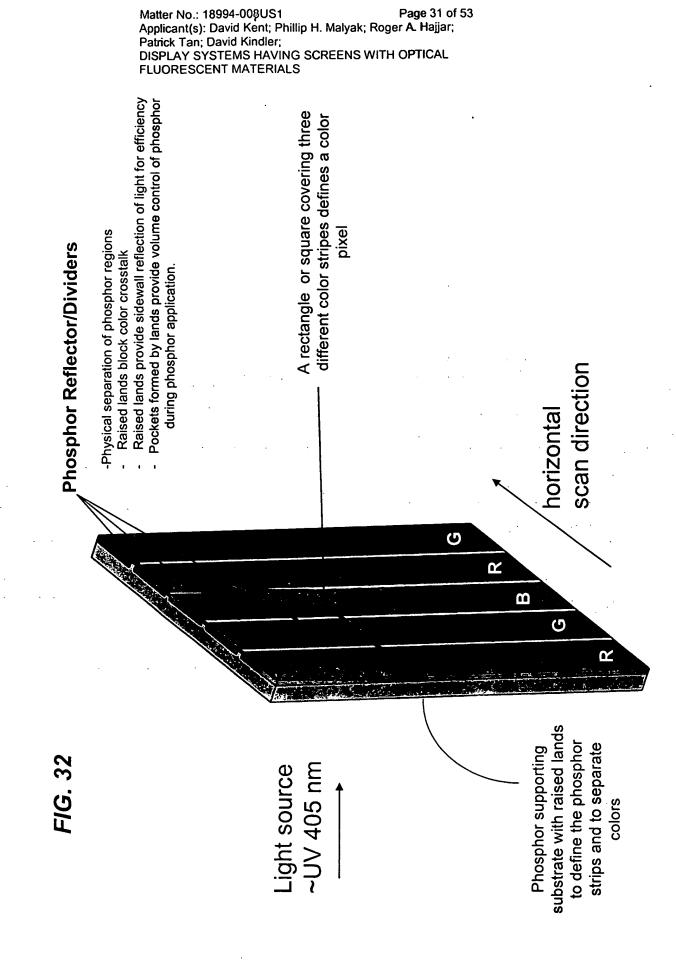
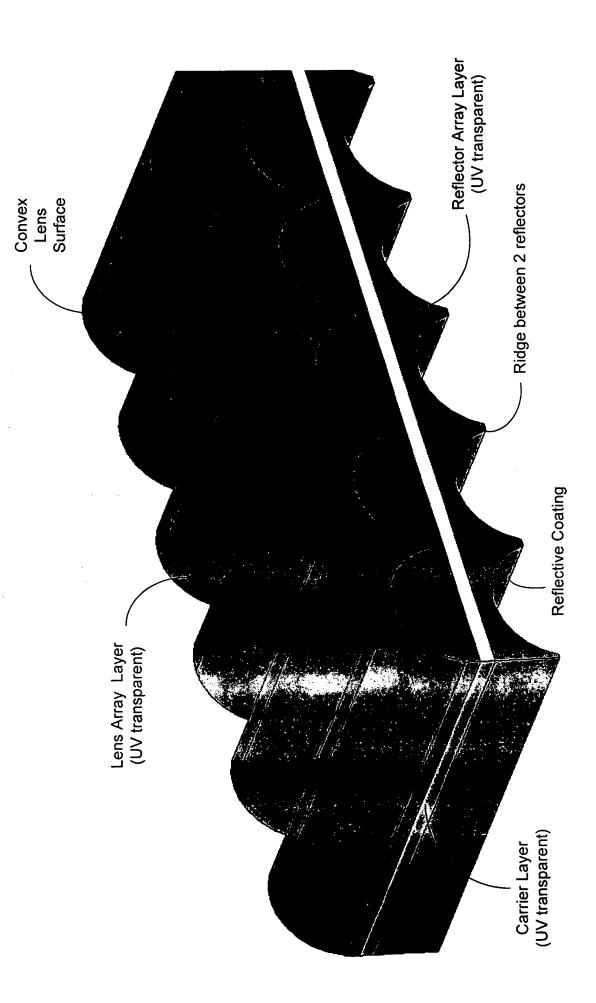
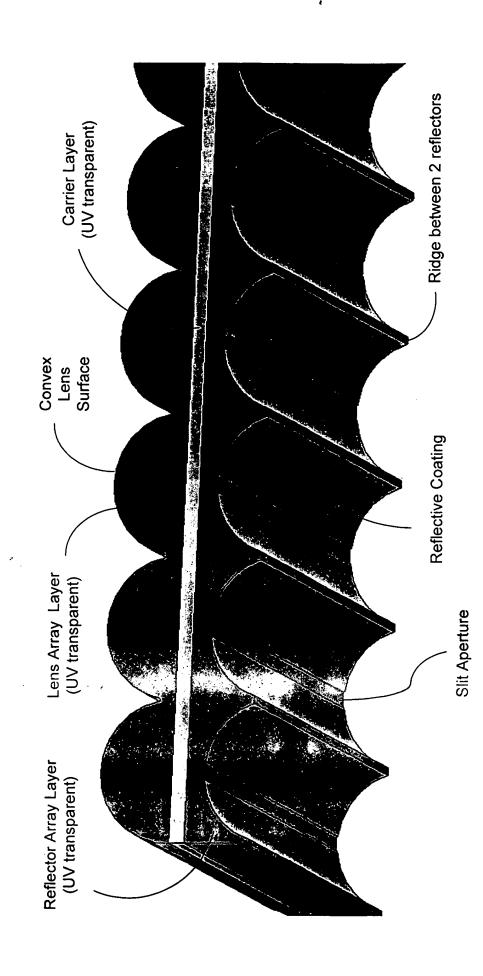
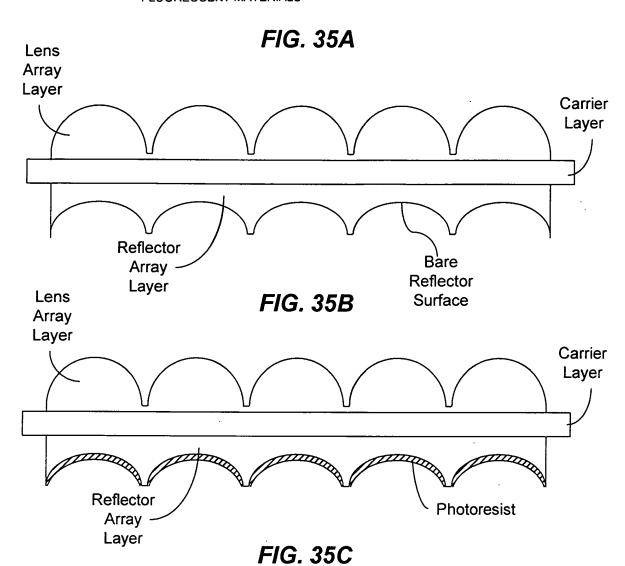


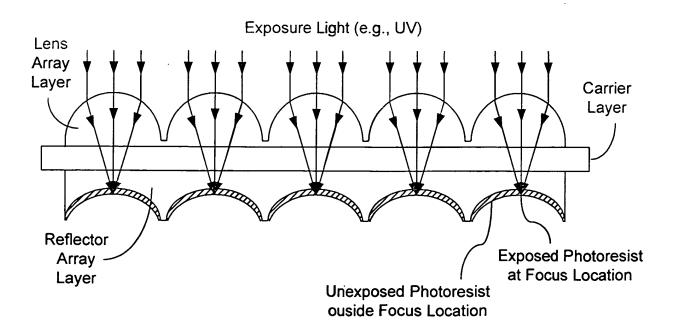
FIG. 34A





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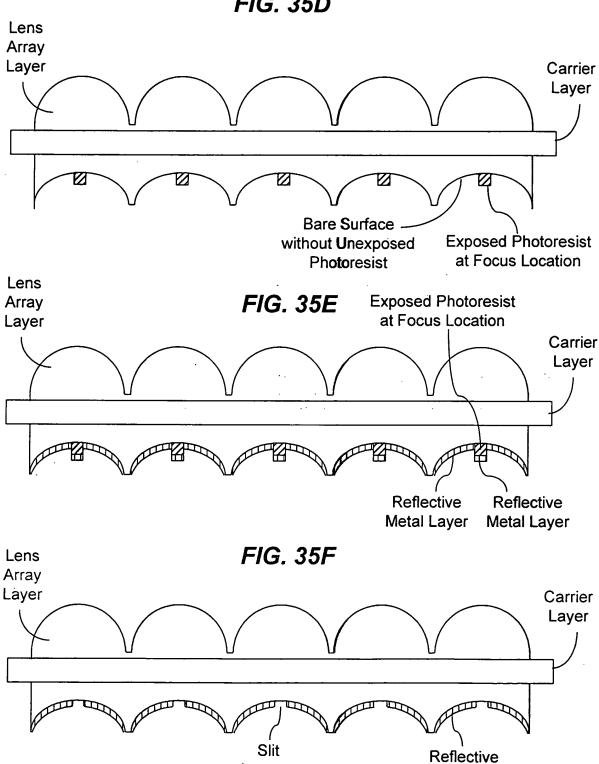


Matter No.: 18994-008US1 Page 36 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar; Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FLUORESCENT MATERIALS

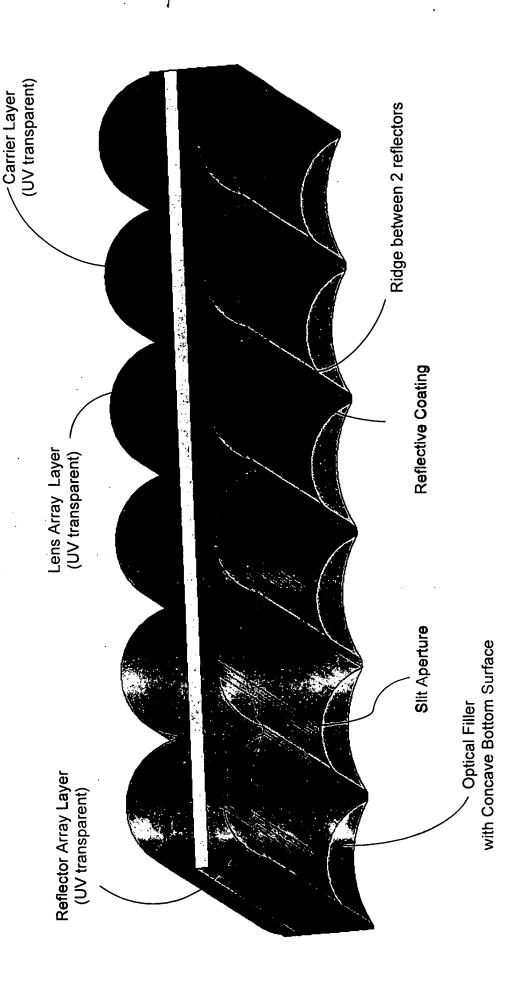
FIG. 35D



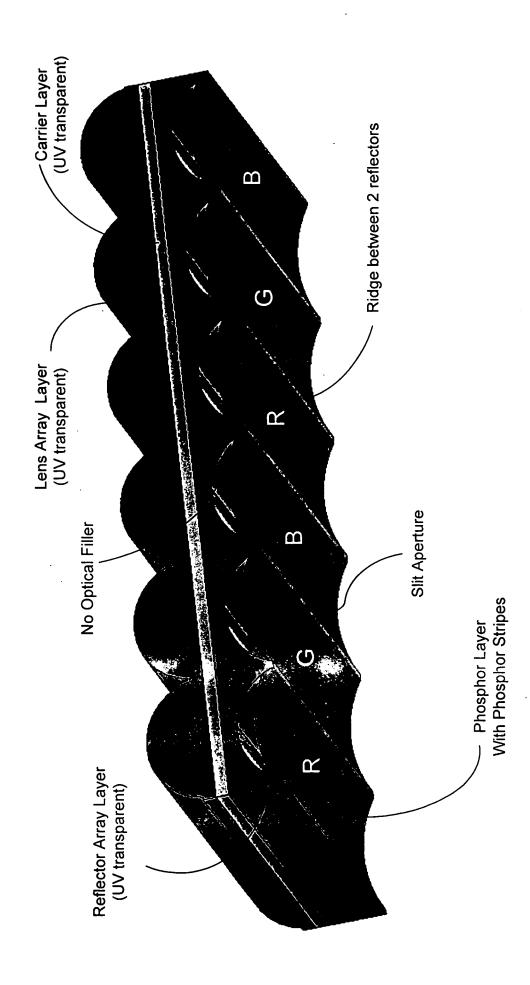
Aperture

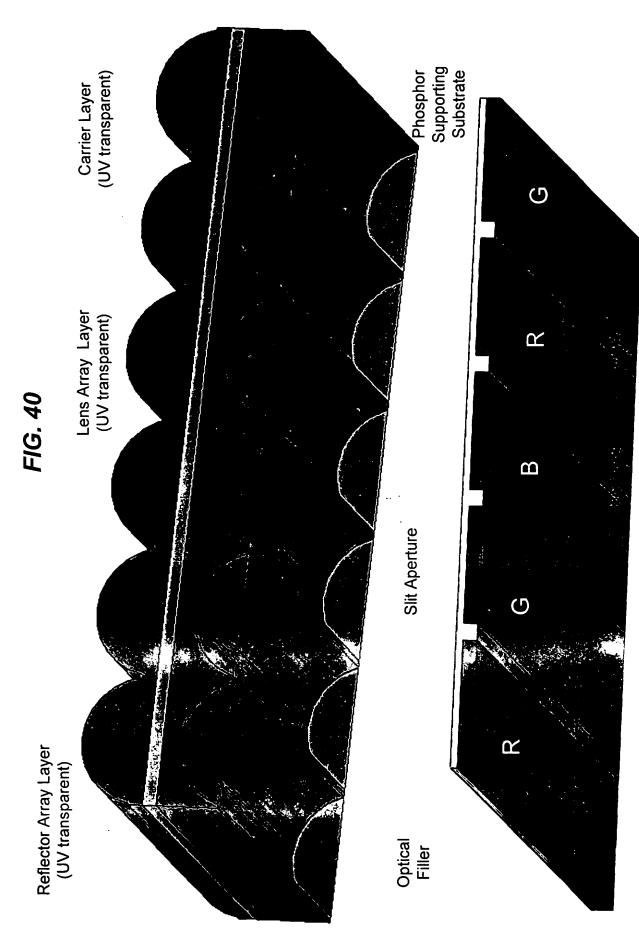
Metal Layer

F/G. 30



F/G. 32

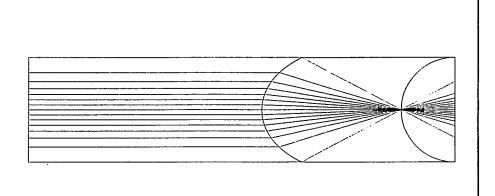




Phosphor Layer With Phosphor Stripes

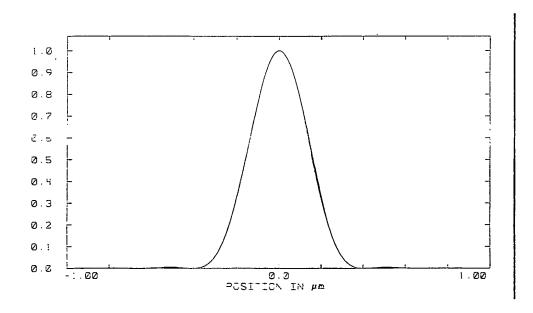
Matter No.: 18994-008US1 Page 42 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar; Patrick Tan; David Kindler; DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL FLUORESCENT MATERIALS

FIG. 41A



Subpixel with hemispherical Reflector

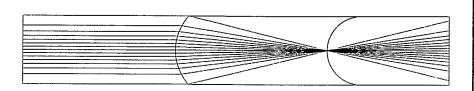
FIG. 41B



Subpixel with hemispherical Reflector

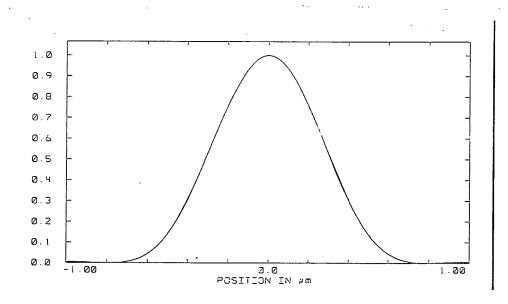
Matter No.: 18994-008US1 Page 43 of 53
Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
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FIG. 42A



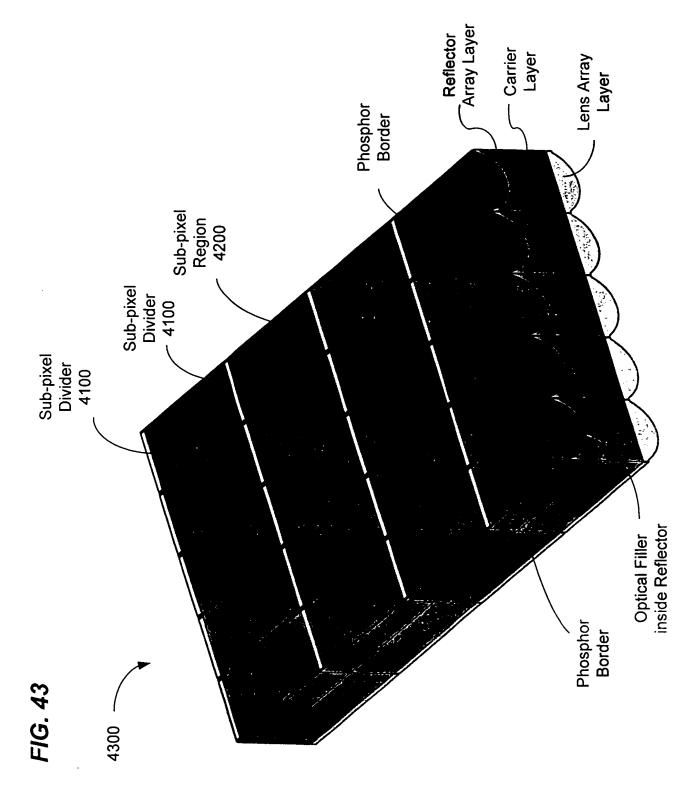
Subpixel with hemispherical Reflector

FIG. 42B

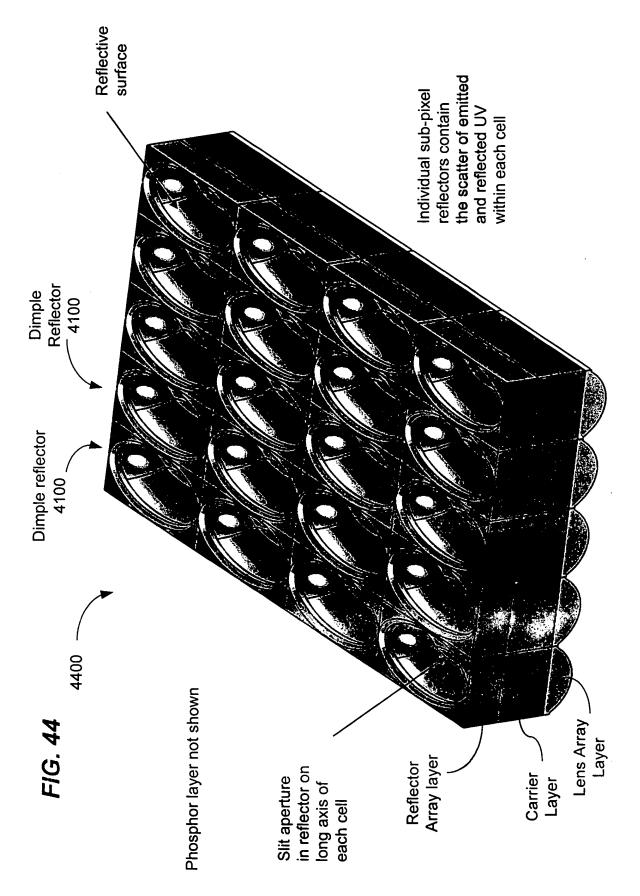


Subpixel with hemispherical Reflector

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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS



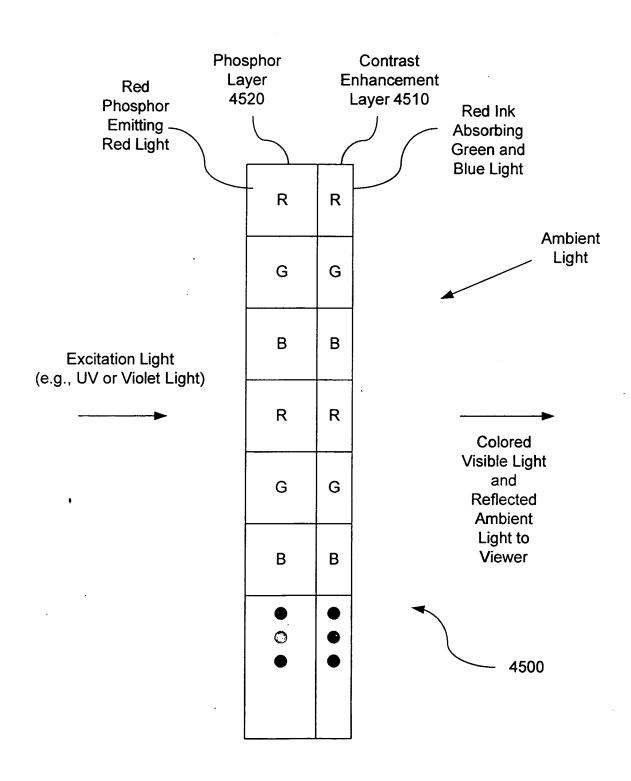
Matter No.: 18994-008US1 Page 46 of 53
Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

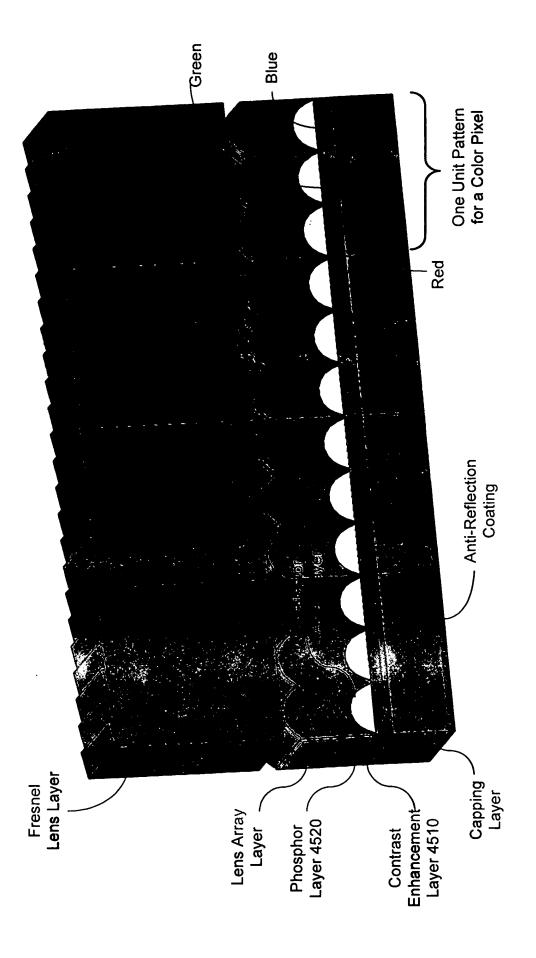
Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FLUORESCENT MATERIALS

FIG. 45





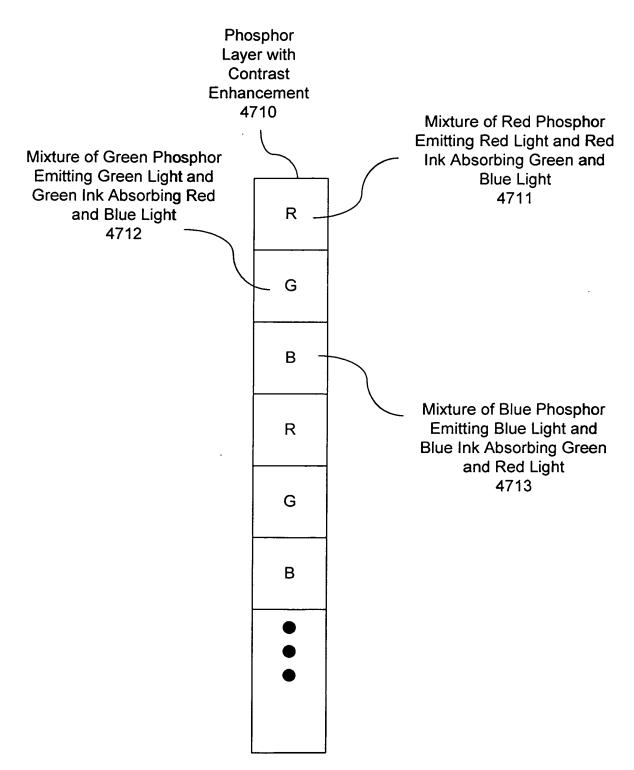
Matter No.: 18994-008US1 Page 48 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan; David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FLUORESCENT MATERIALS

FIG. 47



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Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;
Patrick Tan; David Kindler;
DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL
FLUORESCENT MATERIALS

FIG. 48

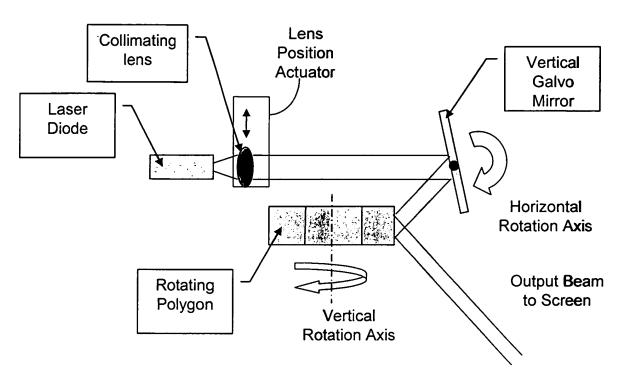
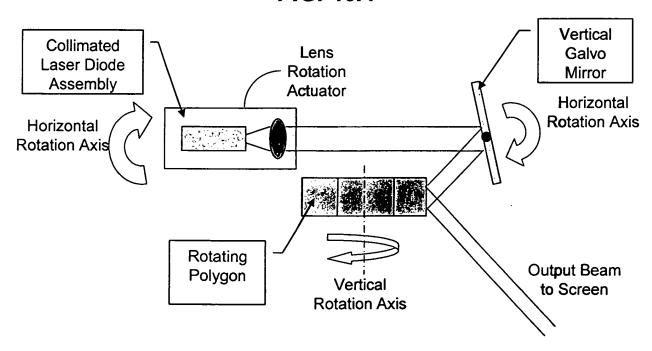


FIG. 49A



Matter No.: 18994-008US1 Page 50 of 53 Applicant(s): David Kent; Phillip H. Malyak; Roger A. Hajjar;

Patrick Tan: David Kindler;

DISPLAY SYSTEMS HAVING SCREENS WITH OPTICAL

FLUORESCENT MATERIALS

FIG. 49B

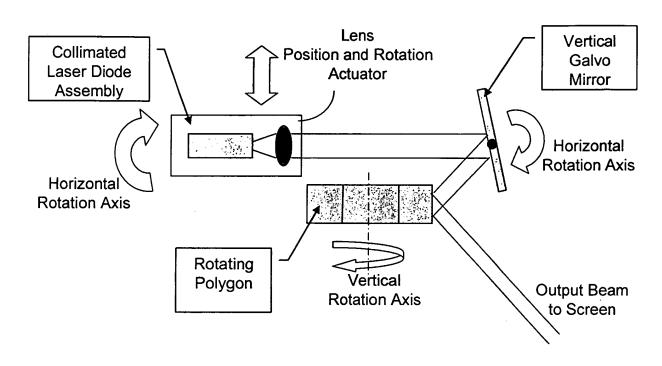
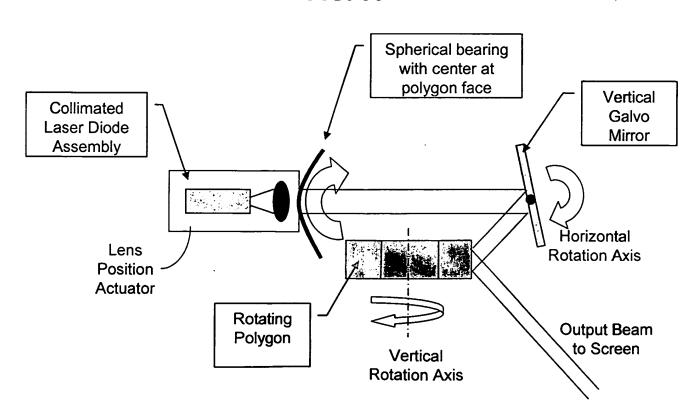
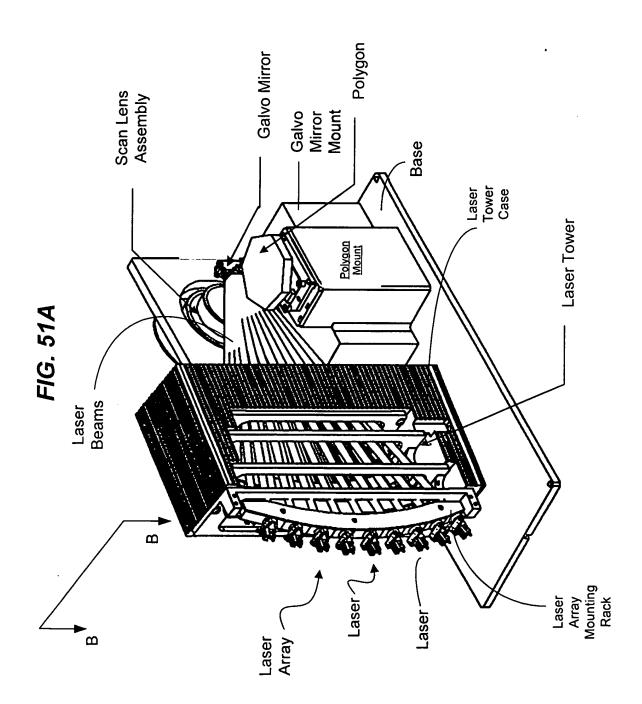
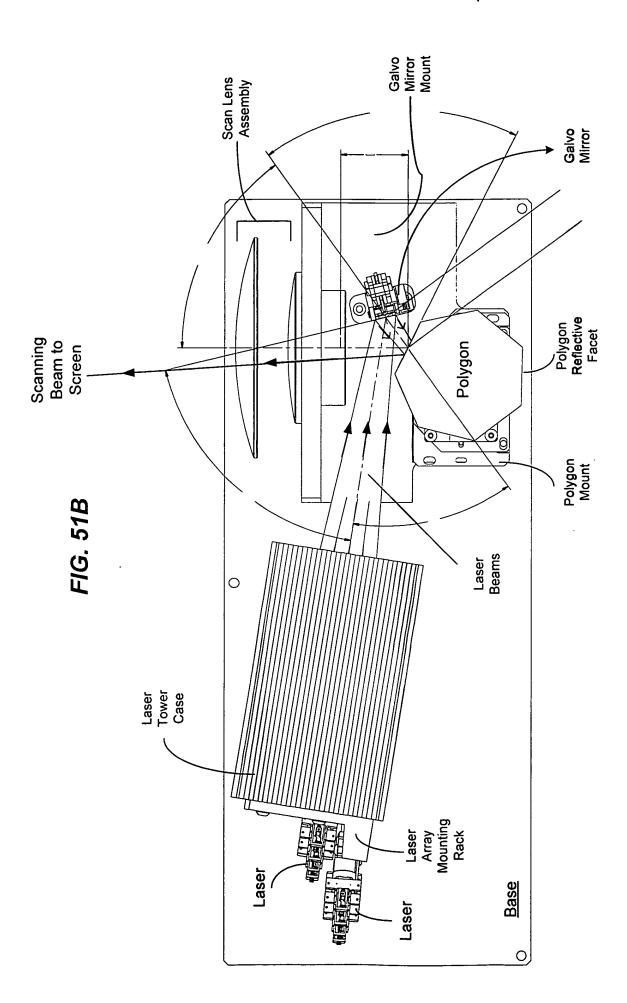


FIG. 50



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